



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/804,730

03/19/2004

Brian Farrell

FM-208J

8270

32488

7590

09/21/2009

Iandiorio Teska & Coleman

260 Bear Hill Road

Waltham, MA 02451

EXAMINER

WORRELL JR, LARRY D

ART UNIT

PAPER NUMBER

3765

MAIL DATE

DELIVERY MODE

09/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/804,730	Applicant(s) FARRELL ET AL.	
	Examiner Danny Worrell	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/26/09 as an RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-23,25,26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,15-23 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-23,25,26 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/09, 5/09</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3765

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/26/09 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 4, the term "the thermoplastic reflow process" now lacks clear antecedent basis. Also, "ultrasonic welding and rf welding" are redundant given the amendments to claim 1.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3765

Claims 1, 3-6, 9, 11-14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al (U. S.P. 6,420,008) in view of Akram (U.S.P. 6,785,144) and further in view of Kohama et al (U.S.P. 6,412,701).

The patent to Lewis et al discloses an electrically active textile article comprising fabric (see col. 3, lines 55-58), a flexible circuit (46, Fig. 2) formed on a flexible substrate (14, Fig. 1) secured to the fabric (see col. 3, lines 21-24 and lines 55-58 and col. 4, lines 38-39), and at least one electronic component (e.g. the electronic components that are connected to form the Binary Counter shown in Fig. 2) populating the circuit. The flexible substrate (14, Fig. 1) is a printed circuit board. It would have been obvious to construct the circuit with traces and pads as suggested by Akram (see col. 4, lines 51-62) since these traces and pads are commonly used in printed circuit boards to interconnect various electronic components. Also an adhesive rather than a ultrasonic welding secures the fabric. The disclosure of Kohama et al. teaches ultrasonic welding as a means for securing fabrics with circuits. It would have been obvious at the time the invention was made to provide the securing means as a thermoplastic reflow process such as ultrasonic welding rather than adhesive in order to provide a more permanent attachment of the fabrics. With regard to claim 9, note protective covering (12).

Claims 10 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al in view of Akram in view of Kohama et al (U.S.P. 6,412,701) and further in view of Benniou (U.S.P. 4,774,434).

The protective covering of the combined teachings is not set forth as being waterproof. To construct the protective covering of Lewis et al from a waterproof material as suggested by

Art Unit: 3765

Bennion (at col. 1, lines 61-64) would have been obvious since the circuit would be protected from malfunctioning in a wet environment.

Claims 7, 8, 15-23, and 25 remain withdrawn from further consideration.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Worrell whose telephone number is 571/272-4997. The examiner can normally be reached on MONDAY-THURSDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GARY WELCH can be reached on 571/272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Danny Worrell/
Primary Examiner, Art Unit 3765

ldw